REPORT OF THE WASTE REDUCTION AND PREVENTION COMMITTEE ON USED OIL

Submitted to:

The Honourable J. Glen Cummings
Minister of Environment, Province of Manitoba

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The views expressed in this report are those of the Committee representatives. The publication of this report by Manitoba Environment does not constitute acceptance or endorsement of any or all of the recommendations it contains. As part of the WRAP process, Manitoba Environment has facilitated the development of this report so that further consultation can proceed to develop a WRAP Action Plan for approval by the Minister of Environment.

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EXECUTIVE SUMMARY

Used oil is a regulated hazardous waste in Manitoba. These used lubricants represent a significant environmental hazard when indiscriminately disposed of. The amount of lubricants sold in Manitoba (1989 data) is approximately 50 million litres/year. It is assumed that about half of this amount is consumed in use. That leaves about 25 million litres/year collectible. Currently, about 3 million litres/year are collected--all from the industrial and service station sectors. This leaves 22 million litres unaccounted for, and therefore, it is assumed improperly handled and disposed of.

The generators of used oil can be divided into two distinct groups--the industrial generators and the do-it-yourself (DIY) used oil generators. Both sectors need to be addressed in Manitoba.

Responsibility for effective action is shared by all participants--the seller, the user, and government.

Government provides the regulatory framework to allow:

- at least two appropriate reuse options for collected oil;
- level playing field for all sellers;
- proper return or handling by the user (used oil generator).

The seller provides:

- the means by which his customer can return or handle used oil in a proper fashion;
- market forces and business economic decisions ensure cost effectiveness and competitiveness.

The user (used oil generator) provides:

- proper handling or return of uncontaminated used oil.

RECAP

1) Regulate or approve at least two viable and acceptable methods for handling used oil.

2) Protection from "unusual and untraceable" contamination of used oil from the DIY market sector.

3) Require used oil generators, both industrial and DIY, to return used oil, or handle their used oil in an acceptable manner as spelled out by regulation.

4) To ensure a level playing field, government should require all seller of lubricants to provide an effective means for the return of their used lubricants. This can be internal to the seller, or contractual/external to his operations. This might best be handled through a licencing requirement for those wishing to sell oil.

5) The designation of "hazardous waste" for used oil should be changed so as not to impede collection efforts. It is recommended that the used oil issue is large enough to warrant its own classification, or at the very least, be designated as a "special waste".

Two key points are fundamental to the program. There must be at least two approved reuse options available for the collected used oil--with no collection started until reuse is in place, and there must be a level playing field with all sellers participating. Both of these need to be enforced through regulation.

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INTRODUCTION

BACKGROUND

In June 1989, the Minister of Environment set out a challenge for Manitobans to accomplish a 50 percent reduction in the volume of solid waste that goes to waste disposal grounds by the year 2000. The Minister also appointed a multi-stakeholder Recycling Action Committee (RAC) to develop recommendations on a strategy for accomplishing this objective. In June 1990, the RAC Action Plan, which included 56 recommendations, was publicly released. This report placed a particular emphasis on strengthening responsibility within the "distribution chain" to ensure that waste would be reduced for designated products and materials, and that markets would be established for secondary materials where this was necessary.

In April 1990, the Manitoba Legislature adopted new legislation, the *Waste Reduction and Prevention Act,* to establish an effective process and necessary powers for accomplishing waste reduction objectives. Following a review of RAC's recommendations to ensure that the new legislation was consistent with the proposed strategy, the Manitoba Government proclaimed *the WRAP Act* in August 1990.

The WRAP Act establishes a process, with clearly defined stages, for addressing waste reduction problems. These stages are as follows:

- Identification of a priority material.
- The Minister of Environment appoints a stakeholder WRAP Committee for each priority material.
- Adoption of a target for waste reduction or prevention.
- Development of plans and programs to meet the target.
- Minister approves WRAP Action Plan.
- Recording of information on the program's performance.
- Assessment of effectiveness.

The procedure followed by Manitoba Environment for the development of WRAP Action Plans ensures public consultation and accountability. Stakeholders and the public may review both the WRAP Committee terms of reference and its reports. There will be full consultation on regulatory initiatives.

The Waste Reduction and Prevention Act specifically empowers the Minister of Environment to develop regulations calling on "producers or groups of producers to develop, submit and implement waste reduction and prevention plans". Consistent with the desire to develop cooperative and non-regulatory solutions prior to any formal adoption of appropriate regulations, the Minister of Environment, under the authority of the Waste Reduction and Prevention Act, established four committees in January 1991 to provide advice on processes for "distributors of products or materials with the potential to become waste" to report on how they will fulfill their responsibilities to minimize waste and exercise stewardship.

This report of the WRAP Committee on Used Oil reports on the industry stakeholders' perspective on what would constitute an appropriate waste reduction target, and how this target can be achieved. It responds to the Terms of Reference that were developed for the Committee by the Minister.

Recognizing the critical role of other stakeholders in the process of determining and achieving waste reduction targets, the Committee has been explicitly requested to identify appropriate roles for these stakeholders. Input from other stakeholders has also been explicitly requested by the Minister. The Reports are to be distributed to other stakeholders for comment. The Minister will respond to the WRAP Committee Report and accompanying consultations to provide direction on the adoption and implementation of WRAP Action Plans.

PREAMBLE

WHEREAS there is an estimated 50 million litres of new oil sold in Manitoba annually;

WHEREAS a collection mechanism does not exist for the used oil generated in the farm and do-it-yourself sectors, and only a small quantity of used oil is being collected from the industrial and commercial sectors;

WHEREAS the Government of Manitoba is committed to establishing a comprehensive collection and management system for all used oil generated in Manitoba;

WHEREAS *the Waste Reduction and Prevention Act* empowers the Minister of Environment to develop regulations calling on "producers or groups of producers to develop, submit and implement waste reduction and prevention plans" for materials they distribute in the Province of Manitoba;

THEREFORE , the Minister of Environment, under the authority of *the Waste Reduction and Prevention Act*, hereby establishes a committee to establish a safe and efficient collection and management system for used oil in Manitoba, and provide a process for "distributors of products or materials with the potential to become waste" to report on how they will fulfill their responsibilities to minimize waste and exercise stewardship for their products.

PURPOSE

To advise the Minister on the best method to establish a comprehensive used oil collection and management system in Manitoba to achieve a high rate of recovery of used oil in the commercial, industrial, farm/rural and do-it-yourself sectors.

TERMS OF REFERENCE

- Identify methods that will establish an effective collection and disposal system for the commercial, industrial, farm/rural and do-it-yourself sectors.
- Develop achievable targets for collection rates and implementation schedules for all user sectors.
- Determine methods to ensure accountability and compliance.
- Determine an appropriate financing system that ensures that the costs of collection and disposal are absorbed by the waste generating community in a manner that does not distort the market.
- Identify appropriate roles for non-industry stakeholders in achieving high waste diversion rates.
- Recommend a course of action for the Minister of Environment.

COMMITTEE COMPOSITION

- Canadian Petroleum Products Institute
- Canadian Tire
- Federated Co-op
- Mohawk Oil
- Quaker State

REPORT OF THE WRAP COMMITTEE ON USED OIL

THE PROBLEM

VOLUMES OF OIL SOLD IN MANITOBA

About 50 million litres (ML) of lubricants are sold in Manitoba annually. Of this, about 12 million litres are sold in containers that are less than 20 litres. A breakdown of oil sales in Manitoba for 1989 is shown in Table 1.

TABLE 1

1989 LUBRICANT SALES IN MANITOBA

Lubricants	Total (ML)
Passenger Car Motor Oil	10.6
Heavy Duty Engine Oil	12.9
Industrial Hydraulic Oil	3.1
Circulating/Turbine Oils	0.4
Automotive Gear Oils	1.1
Industrial Gear Oils	0.4
2 Cycle Engine Oils	0.5
Railroad Engine Oils	6.6
Rock Drill Oils	0.2
Paper Machine Oils	0.2
Metalworking Oils	0.2
Tractor Hydraulic/ Transportation Oils	2.4
Marine Engine Oils	-
Others	9.4
TOTAL	**50.1**

POTENTIALLY RECOVERABLE QUANTITY

It is estimated that about 40% to 50% of this oil is potentially recoverable. This represents 20 to 25 million litres.

Some used oil is presently being recovered in Manitoba. Prime Motor Oil Ltd. (Consolidated Environmental Resources), which is the major hauler of used oil in the province, transported almost 3 million litres in 1990. Most of this product (about 90%) was transported to the United States.

GENERATORS OF USED OIL

There are four main sectors that generate used oil: Do-It Yourselfers (DIY), Farm/Rural, Industrial, Commercial.

NATURE OF USED OIL

Definition

The Canadian Council of Ministers of Environment define used oil as follows:

> Used oil is an oil from industrial and non-industrial sources which has been acquired for lubricating or other purposes and has become unsuitable for its original purpose due to the presence of impurities or the loss of original properties. Used oil does not include oils derived from animal or vegetable fats nor does it include crude or fuel oils spilled onto land or water and wastes from petroleum refining operations.*

Characteristics of Used Oil

The characteristics of used oil vary according to the type of virgin oil and how it was used. Contaminants are imparted to oil during use (from the ingression of foreign compounds), and after use (e.g. as a result of management practices for the storage and handling of used oil).

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*Source: Code of Practice for Used Oil Management in Canada, Canadian Council of Ministers of the Environment, August, 1989, p. 1.

THE SOLUTION

Used oil is a regulated hazardous waste in Manitoba. These used lubricants represent a significant environmental hazard when indiscriminately disposed. The amount of lubricants sold in Manitoba (1989 data) is approximately 50 million litres/year. It is assumed that about half of this amount is consumed in use. That leaves about 25 million litres/year collectible. Currently about 3 million litres per year is collected--all from the industrial and service station sectors. This leaves 22 million litres unaccounted for, and therefore, it is assumed improperly handled and disposed of. It is the responsibility of the sellers of lubricants, the generators of used oil, and government to provide the solution to the problem of used oil.

The generators of used oil can be divided into two distinct groups--the industrial generators and the do-it-yourself (DIY) used oil generators. Both sectors need to be addressed in Manitoba.

COMMON REQUIREMENTS TO BOTH GENERATOR GROUPS

In order to successfully proceed, regardless of the generator classification, the following is required:

1) At least two different REGULATED and economically viable reuse options for handling used oil. Options which should be evaluated include rerefining, use as a fuel in cement kilns, use as a fuel for thermal power generation.

   Just as two different options are required for reuse, so there are also practices which should be discouraged. Consideration should be given to banning road oiling and the burning of used oil in small furnaces or space heaters not properly equipped with pollution abatement equipment. It these two options are not banned, significant improvements in used oil recovery to acceptable reuse options will likely not be achieved.

2) REGULATED AND LICENCED collectors of used oil.

REQUIREMENTS FOR THE INDUSTRIAL GENERATORS

1) REGULATIONS must be in place mandating proper handling of used oil by this group of generators, i.e. verified proper disposal through a licenced collector or regulated reuse option.

2) Government's role need only be one of auditing on an industry wide basis for compliance with these regulations.

3) Cost of on-site storage, collection and/or disposal is deemed a cost of doing business.

4) Liability for contaminated oil disposal, spill clean-up, etc. remains with the generators.

5) The supplier of lube oil to these generators has a responsibility to assist. The level of assistance will be determined on a customer--supplier business basis.

REQUIREMENTS FOR THE DIY GENERATOR

This group of generators represents about 20% of the oil sold in the province--about 10 million litres of sales. All of the used oil generated by this sector is currently unaccounted for in terms of used oil returns.

Sales to this group is through a large variety of channels, i.e. service stations, discount stores, grocery and drug stores, co-ops, retail outlets.

To obtain effective collection from this group requires the following:

1) convenient collection;

2) public awareness programs to educate the DIY sector of the importance of returning their used oil to a collection system;

3) in the event of unusual or untraceable contamination, government should assume liability for oils collected from this sector so as not to discourage potential collection sites or networks;

4) mandatory participation by all sellers of DIY oil to obtain the widest coverage.

RECAP

1) A used oil program needs to deal with two separate and distinct types of used oil generator.

2) Both the industrial generators and the DIY generators programs require regulated reuse, and regulated collection prior to any program start-up.

3) At least two reuse and handling options need to be approved by government.

4) No collection should take place until disposal is in place.

5) The polluter pays concept is fundamental to both programs.

6) The industrial generator program requires regulations mandating proper disposal if it is to be effective.

7) The industrial sector bears the full costs of collection, disposal and liability as a cost of doing business.

8) The DIY generators program requires action by all who sell into this market.

RECOMMENDATIONS

COLLECTION

1) All those that sell lubricants must provide an EFFECTIVE MEANS for the return of their used oil. This may be a physical system of tanks at specific points of sale, or it may be a contractual system with other sellers, third party collection sites, etc.

2) The used oil generator has a responsibility to return uncontaminated used oil to a collection system. This needs to be mandated through regulation.

   In the industrial sector, costs associated with collection and disposal is the responsibility of the generator. The supplier has the responsibility to assist. Costs are those of doing business and are handled through normal customer-supplier arrangements.

   Public education and awareness programs are required to make the DIY used oil generator realize the importance and significance of returning used oil to a collection site.

DISPOSAL

1) Collection cannot commence until disposal is in place. At least two separate disposal and handling options should be available for collected used oil.

2) Disposal methods/outlets should be regulated or approved by the province so as to alleviate any concerns around a disposal option's suitability.

3) Collectors need to be held blameless for the collection of contaminated used oil from the DIY sector. Oil from this sector, when used, poses no significant contaminants problems. Only when this oil is mixed with chemicals not related to lubricants, i.e. pesticides, paints, chlorinated solvents, does a problem arise in terms of "Hazardous Waste Disposal Options". As these chemicals which render the used oil difficult to deal with were not sold to the DIY User originally, and are not normally constituents in used oil after it comes out of the crankcase; sellers should not be held responsible for these materials or their return.

REGULATIONS

1) Regulate or approve at least two viable and acceptable methods for handling used oil.

2) Protection from "unusual, and untraceable" contamination of used oil from the DIY market sector.

3) Require used oil generators, both industrial and DIY, to return used oil, or handle their used oil in an acceptable manner as spelled out by regulation.

4) To ensure a level playing field, government should require all sellers of lubricants to provide an effective means for the return of their used lubricants. This can be internal to the seller, or contractual/external to his operations. This might best be handled through a licencing requirement for those wishing to sell oil.

5) The designation "hazardous waste" for used oil should be changed so as not to impede collection efforts. It is recommended that the used oil issue is large enough to warrant its own classification, or at the very least be designated as a "special waste".

BENEFITS

The major benefit to this overall approval is that responsibility for effective action is shared by all the participants--the seller, the user, and government.

GOVERNMENT

Government provides the regulatory framework to allow:

- at least two appropriate reuse options for collected oil;
- level playing field for all sellers;
- proper return or handling by the user (used oil generator).

SELLER

The seller provides:

- the means by which his customer can return or handle used oil in a proper fashion;
- market forces and business economic decisions ensure cost effectiveness and competitiveness.

USED OIL GENERATOR

The user (used oil generator) provides:

- proper handling or return of uncontaminated used oil.